Healthy Lawn Basics

The only way to reduce a dependence on chemical fertilizers is to develop a healthy lawn, which is naturally resistant to weeds, insects and diseases. If you need to fertilize your lawn more than once a year, consider these ways of improving the natural health of your lawn:

1. Improve the Soil

The first step is to test the soil's pH - it should read between 6.5 and 7.0, which is slightly acidic. Soil that is too acidic will need a sprinkling of lime; sulfur can be added to soil which is not acidic enough. You can buy a pH tester for \$40 - \$60. Another solution is to have your soil tested professionally; first call your extension office - they often provide soil testing as a free service.

Lawns grow best in loamy soils that have a mix of clay, silt and sand. Too much clay in the soil mix, or heavy use, can compact the soil and prevent air and nutrient flow. Compacted soil may need aeration, a process of lifting small plugs of turf to create air spaces in the soil. For best results, rent an aerator or hire a lawn service to do the job - this will remove "finger size" plugs which improves aeration. Aeration is best done before top dressing and fertilizing.

Organic matter, such as compost and grass clippings, will benefit any type of soil; it lightens soil which is heavy in clay, and it builds humus in sandy soils, which helps retain water and nutrients.

2. Choose a Locally Adapted Grass

Grasses vary in the type of climate they prefer, the amount of water and nutrients required, shade tolerance and the degree of wear they can withstand. Ask your local garden center to recommend grass which is best adapted to your area.

3. Mow Often, but Not Too Short

Giving your lawn a "Marine cut" is not doing it a favor. Surface roots become exposed, the soil dries out faster and surface aeration is reduced. As a general rule, don't cut off more than one-third of the grass at any one time. Most turf grass species are healthiest when kept between 2.5 and 3.5" tall.

When the lawn is finished growing for the season, cut it a bit shorter to about 2". This will minimize the risk of mold buildup during winter.

4. Water Deeply but Not Too Often

Thorough watering encourages your lawn to develop deep root systems which make the lawn hardier and more drought-resistant. Let the lawn dry out before re-watering; as a rule of thumb, the color should dull and footprints should stay compressed for more than a few seconds. When watering, put a cup in the sprinkler zone; it should get at least one inch (2.5cm) water. Most healthy lawns require only 1" of water per week.

The best time for watering is early morning - less water will be lost to evaporation. Ideally, it's better to water the first half-inch or so, then wait for an hour or two before watering the second half-inch.

5. Control Thatch Build-Up

Thatch is the accumulation of above-soil runners, propagated by the grass. This layer should be about 1/2" (1.25cm) on a healthy lawn, and kept in balance by natural decomposition, earthworms and microorganisms. Too much thatch prevents water and nutrients from reaching the grass roots. Before resorting to renting a dethatcher, however, effort should be made to improve aeration to control thatch buildup. Aeration brings microorganisms to the surface that will eat most of the thatch. If you don't aerate, the roots stay near the surface, contributing to thatch buildup. When you aerate once a year it breaks down the thatch, allowing the roots to get deeper in the soil. This leads to thicker grass which naturally kills weeds too. While a dethatcher will reduce thatch buildup, it can strip and thin the grass so

much it reduces competition for weeds allowing them to germinate easier. You can also reduce thatch with a steel rake.

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